

BEETLE MITES

Arachnida oribatida

Over 100 species, all 0.2 – 1.4mm, found in soil



HARD TICKS

Arachnida ixodidae

one species

hyalomma lusitanicum

blood sucking tick living on animals

3-5mm, 10mm when engorged



PSEUDOSCORPIONS

Arachnida pseudoscorpiones

8 species 2-8mm long with scorpion-like pincers



Image 1. *Atemnus politus*: female habitus, dorsal view.

Atemnus politus

Canarichelifer (Dactylochelifer) teneriffae



Garypus beauvoisii



And six other similar species

HARVESTMEN

Arachnida opiliones

2 species like spiders with long legs

Bunochelis spinifera



Daddy-long-legs, but see also
Arachnida pholcidae and Diptera
tipulidae

Maioresus randoi (Majorera Cave
Spider)



A blind spider, extremely rare, found only
in the Cueva del Llano in Villaverde

SPIDERS

Arachnida aranae

C28 families

Agelenidae 1 sp funnel web spider
Agelena gonzalezi

Araneidae 5 sp
Cyclosa citricola



Dictynidae 2sp

Dictyna guanchae



Dysderidae 1 sp
woodlouse spider
Dysdera longa
preys exclusively on woodlice



Filistatidae 1 sp
Filistata canariensis



Gnaphosidae 8 sp
Drassodes lapidosus



Idiopidae 1 sp
Titanidiops canariensis
romanus



Linyphiidae 2 sp
Prinerigone vagans *Styloctetor*



Lycosidae 4 sp incl
Arctosa cineria
occurs only on sandy beaches of salt or fresh water. Its grey-brown color makes for a good camouflage, and so it is not often seen, even if it wanders around during daylight



Miturgidae 1 sp
Cheiracanthium seidlitzii



Nesticidae 1 sp
Eidmanella pallida



Oecobiidae wall spider
v small 3 sp
Oecobius sp



Oonopidae 1 sp goblin spider
Silhouetella sp



Oxyopidae 1 sp
Oxyopes kraepelinorum



Palpimanidae 1 sp
Palpimanus canariensis



Philodromidae 3 sp
Philodromus pulchellus



Pholcidae 2 sp
Spermophorides sp



Daddy-long-legs, but see also
Opiliones and diptera tipulidae

Prodidomidae 1 sp
Zimirina hirsute



Salticidae 6 sp jumping spider
Macaroeris sp



Scytodidae 1sp
Scytodes tenerifensis



Segestriidae 1sp
Ariadna insidiatrix



Sicariidae 1sp
Loxosceles rufescens



Sparassidae 2sp
Cerbalus verneui Olios argelasius



Cerbalus verneui Olios argelasius

Tetragnathidae 12sp
Tetragnatha fuerteventurensis



Theridiidae 8 sp dewdrop spiders, steal or share other species webs
Argyrodes argyroides



Thomisidae 2sp
Thomisus onustus *Xysticus fuerteventurensis*



Trochanteriidae 1 sp
Platyoides venturus
scorpion spider



Zodariidae 1 sp
Zodarion nesioides
ant-eating spider



SUN SPIDERS

Arachnida solifugae 1 sp
Eusimonia wunderlichi c2-3cm?



WOODLICE

Malacostraca isopoda

15 species some aquatic

Venezillo canariensis

Armadillidium album



Armadillidium vulgare



Halophiloscia canariensis
Seashore variety
tidal zones and rocky beaches



ligia italica
rock lice



trichorhina anophthalmia
tiny, used as fish food



agabiformius lentus



leptotrichus panzerii



porcallio alluaudi
p laevis



p lamellatus



p spinipes



porcellionides pruinosus



p sexfasciatus



soteriscus disimilis

Tylos latreillei

BRISTLY MILLIPEDES

Diplopoda polyxenida



MILLIPEDES

7 species, two pairs of legs on each body segment

Diplopoda polydesmida

Oranmorpha guerinii



Dolichoiulus sp



CENTIPEDES

Chilopoda
6 species



SPRINGTAILS

Collembola
18 species 1-6 mm long



BRISTLETAILS

Diplura dipluran
1 species

Dipijapyx humberti



CONEHEADS

Protura protura

1 species

Isoentomon serinus



Less than 2mm long, soil-dwelling, very inconspicuous

SILVERFISH

Insecta zygentoma

2 species

Ctenolepsima lineata



Neoasterolepisma myrmecobia



Nocturnal, 13-25 mm long

MAYFLIES

Insecta ephemeroptera

2 species

Cloeon dipterum



Caenis luctuosa (Angler's curse)



Hatch in swarms in the evening and are very short lived, generally only hours

DRAGONFLIES

Insecta odonata

6 species

Anax imperator (blue emperor dragonfly)



Anax Parthenope (lesser emperor dragonfly)



Ischnura sahariensis (Saharan forktail damselfly)



Crocothemis erythraea (scarlet dragonfly)



Orthetrum chrysostigma (epaulet skimmer)



Sympetrum fonscolombii (red-veined darter)



MANTISES

Insecta mantodea

3 species

Blepharopsis mendica (thistle mantis)



Hypsicorypha gracilis



Pseudoyersinia betancuriae



COCKROACHES

Insecta blattaria

Blattella germanica - German



Blatta orientalis - Oriental



Periplaneta Americana - American



Riayaropia maderae - Madeiran



GRASSHOPPERS

Insecta orthoptera
Acrididae grasshoppers

Acrotylus insubricus
and 2 other subspecies



Aiolopus thalassinus (2-3 cm)



Arminda fuerteventurae



Dericorys lobate



Heteracris littoralis

(Mediterranean splendid grasshopper)



Oedipoda canariensis



Omocestus simonyi



Schistocerca gregaria
(desert locust)



Sphingonotus rubescens
and 5 other subspecies



Gryllidae crickets 4 species
Gryllomorpha gracilipes



Gryllus bimaculatus



Hymenoptila lanzarotensis



Svercus palmetorum



Gryllotalpidae mole cricket 1 sp
Gryllotalpa Africana



Pamphagidae toad grasshopper 1 species *Purpuraria erna*



Pyrgomorphidae gaudy grasshoppers 1 species *Pyrgomorpha conica*



Tettigoniidae bush cricket 1 species *plactycleis sabulosa*



EARWIGS

Insecta dermaptera

5 in 4 species

Anisolabis maritima
maritime earwig
Asymmetrical forceps



Euborellia annulipes
ring-legged earwig



Forficula auricularia

common earwig



Forficula barroisi

As common but thicker legs and
single round neck segment

Labidura riparia (striped earwig)



BARK LICE

Insecta psocoptera

1 specie

Cyrtopsochus gibbosus



Small scavenging insect, 1-10 mm long

SUCKING LICE

Insecta anoplura

1 species

Neohaematopinus pectinifer



A parasitic louse that lives exclusively on the blood of the barbary ground squirrel

THRIPS

Insecta thysanoptera

39 species



Tiny cigar-shaped winged insect, 1 – 14 mm long

TRUE BUGS

Insecta hemiptera

Cicadas 13 families

Generally host specific, some live underground and emerge in swarms in multi-year cycles as long as 17 years.

Unmistakeable sound

Aconurella prolixa



Planthoppers – many families
Typically look like leaves and can hop to escape predators



Aphids 14 species

Aphididae green yellow or black



Whiteflies 6 species

Aleyrodidae

Aleurodicus disperses



Scale insects

Dactylopiidae scale insects

Dactylopius coccus cochineals



Live on Opuntias and harvested as source of cochineal

3 other families with hard or soft protective shells on plants

Margarodidae - ground pearls - attach to roots of plants



Shield bugs, many families

Scutelleridae jewel bugs

Back in one piece, not split as a beetle

Eg *Nezara viridula*



Seed bugs many species of one family

Lygaeidae

Aphanus rolandri



Assassin bugs

Reduviidae predatory bugs 4 species

Wide variation in colours and shapes

Coranus aegyptius



Flower bugs

huge range of shapes sizes and colours – feed on sap of specific plants

Alydidae broad-headed bugs

3 species

Nematus sordidatus

Berytinus montivagus



Anthocoridae flower bugs 7 families

Berytidae stilt bugs 7mm slender 1 species

Coreidae leaf-footed bugs 6 species, some with leaf-shaped feet
Haploprocta sulcicornis *Phyllomorpha laciniata*



capsid bugs
Miridae 27 species highly variable

Piesmatidae ash grey leaf bugs 1 species
Parapiesma rotundatum syn *atriplicis*



Pyrrhocoridae cotton strainers firebugs – red 1 species
Scantius aegyptius



Rhopalidae scentless plant bugs
Liorhyssus hyalinus



Stenocephalidae spurge bugs

Tingidae lace bugs 2-10mm 5 species not all lacy
Dictyonota atlantica



Microphysidae minute bladder bugs tiny 2mm

Saldidae shore bugs 2-8mm 1 species
Saldula palustris



LACEWINGS

Insecta planiplenna

11 species

Chrysoperia carnea

common green lacewing



Coniopteryx atlasensis



Coniopteryx atlantica

Semidalis candida



Symphorobius fallax



Wesmaelius navasi



Acanthaclisis baetica



Antlion

Distoleon annulatus
And 1 other sp



Myrmeleon hyalinus



So called because the nymphs are fierce predators of ants, which they trap by digging pits. The adults, with wingspan 2 - 15 mm, are nocturnal. Superficially similar to dragonflies.

Antlion larva



Antlion larva pit trap



BEETLES

ground beetles
woodworms

Carabidae 38 families, mostly shiny black
or metallic with ridged wing covers



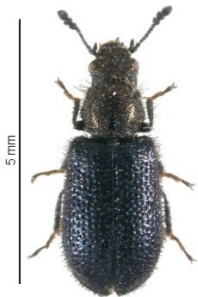
Auger beetles
Bostrichidae
Scobicia barbifron



Longhorn beetles
Cerambycidae 4sp
14sp



Checkered beetles
beetles
Cleridae 3 sp
Corynetinus fimetarius



Furniture beetles and

Anobiidae 14 families



Skin beetles
Dermestidae 3 sp



Leaf beetles
Chrysomelidae



Soft-winged flower

Melyridae
Attalus sp 3 other sp



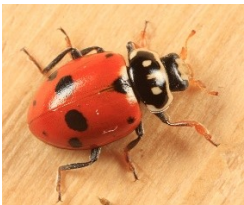
Ladybirds

Coccinellidae

Chilocorus renipustulatus
miranda



Hippodamia variegata
cinciguerrae



Coccinella algerica,



Hyperaspis



Lindorus lophantae



Nephus flavopictus



Oenopia dublieri
quadriplagiatus



Parexochomus nigripennis,



Rhyzobius litura



Scymnus canariensis, *rufipennis*,
tenerifensis, *wollastoni*



Larva



Bark-gnawing
beetles
Trogossitidae
Tenebrioides mauritanicus Atomaria
and one other sp



Silken fungus
beetles
Cryptophagidae
scutellaris
and 1 sp



lined flat bark beetles
Laemophloeidae
Caulonomus rhizophagoides



Lizard beetles
Languriidae
Cryptophilus integer



minute brown scavenger beetles
Latridiidae 2 sp
Corticaria maculosa



root-eating beetles
Monotomidae 2 sp
Monotoma bicolor



Sap beetles
Nitidulidae 7 sp
Carpophilus dimidiatus



Shining flower beetles
Phalacridae 2 sp
Phalacrus corruscus



Silvan flat bark beetles
 Silvanidae 2 sp
Oryzaephilus surinamensis



cycad weevils
 Belidae 1 sp
Aglycyderes sp



Straight-snouted weevils
 .
 Brentidae 5 sp
Aspidapion radiolus



Snout beetles and true .
 weevils
 Curculionidae 41 sp
Brachycerus plicatus



Ant-like beetles
 Anthicidae 5 sp
Anthicus angusatatus



blister beetles
 Meloidae 2 sp
Meloe aegyptius



Tumbling flower beetles
 .
 Mordellidae
Mordellistena sp



Hairy fungus .
 beetles
 Mycetophagidae
Typhaea stercorea



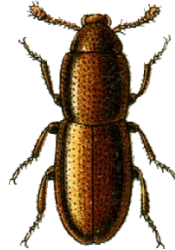
false flower beetles

Scraptiidae 1 sp
Anaspis proteus, *eversi*



Narrow-waisted
bark beetles

Salpingida 1 sp
Aglenus brunneus



Darkling beetles

Tenebrionidae sp

picus



cylindrical bark
beetles

Zopheridae
Myrmechixenus



Texas beetles

Brachypsectridae 1 sp
Brachypterus sp
rubromaculata and 1 ssp



Jewel beetles

Buprestidae
Acmaeodera



Soldier beetles
Cantharidae
Malthinus sp



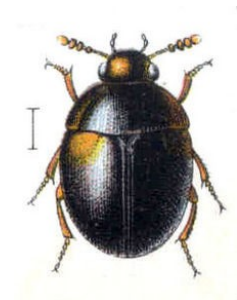
Click beetles
Elateridae 2 sp
Ardiophorus sp



Hide beetles
Trogidae 1 sp
Trox granulipennis, hispidus



Round fungus beetles
Leiodidae 1 sp
Chobautiella anisotomoides



False fireflies
Drilidae
Malacogaster tilloides



Scarab beetles
Scarabaeidae 8 sp
Aphodius granarius



Clown beetles
Histeridae 7 sp
Saprinus semistriatus



Rove beetles
Staphylinidae 35 sp

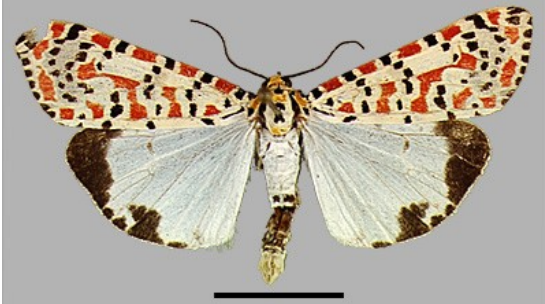


MOTHS

Insecta lepidoptera

C20 families

Utetheisa pulchella (Crimson-speckled Flunkey)



Bedellia somnulentella



Cossidae sp



Glyphipterix umbilici



Pyralis farinalis (meal moth) and 20 other species of pyralid moth



Bembecia handiensis



Acherontia Atropos and 1 other species (hawk moth)



Hyles livornica and 3 other subspecies



Choristoneura simonyi



Crociosema plebejana



8 other families of small brown inconspicuous moths

3 families of butterfly -see separate book

TRUE FLIES

Insecta diptera

Mosquitos

2 species

Culex pipiens



Culiseta laticinctus



Gnats and midges

Aphidoletes aphidimyza eggs orange, larvae eat aphids, short lived
hide under leaves during the day 3mm



Leia arsona and 2 other sp



Sand flies

5 species, too small to differentiate

Tethina sp



Craneflies

Dicranomyia vicina and 2 other species



Daddy long legs, but see also

Opiliones and arachnida spermophorides

House flies

Many species in 5 families

fannia canicularius lesser house fly

3-6mm habit of entering buildings and circling near the center of rooms



Musca domestica common house fly



Calliphora vicina bluebottle *Tabanus cordatus* horse fly



Rhinophoridae flies!

Tachinidae flies varied some like house flies

Hoverflies

Episyrphus balteatus Eupeodes corollae
and 10 other species



Asilidae assassin flies 5 sp aggressive predators



Bibionidae march flies love bugs short lived



Bombyliidae a sp dilophus



Dolichopodidae 4 sp long legged flies under 5mm
Hydrophorus praercox ?all water flies?



Pipunculidae 1sp big-headed flies, eyes almost cover head
Tomosvaryella sp



Sepsidae ensign flies
Sapsis thoracica and 1 other sp



Simuliidae 1 sp black fly
Simulium sp



Therevidae 2 sp stiletto flies
Thereva sp



Ulidiidae picture-winged flies 1 sp
Physiphora alceae



Fruit flies
Drosophila melanogaster and 9 other sp



?

Oestridae botfly
Sarcophagidae 3 sp



Wolflion

Lampromyia sp

Adults fly at dusk and can be mistaken for dragonflies. Larvae, called wormlions, make cone-shaped pits in sandy areas and feed on insects that fall in. The pits are excavated from the bottom so the walls are at the critical angle for falling in. As soon as it is alerted by falling sand grains, the larva assists this process by vigorously flicking more sand out from the center of the pit. This undermines the pit walls and causes them to collapse toward the center. The sand that the larva now is flinging also pelts the prey with so much loose, rolling material as to prevent it from getting any foothold on the easier slopes that the initial collapse of the slope has presented. Very similar to antlions qv



Tiny flies

Many species, less than 5mm, sometimes 1mm, eg
Leptocera sp

Agromyzidae leaf-miner flies
Camillidae tiny 2-3mm little known
Carnidae bird flies 1-2mm little known
Chloropidae grass flies 1-4mm, rarely larger
Chyromyidae very small yellow
Hippoboscidae crataerina acutipennis parasite of the swift
Hippoboscidae Pseudolynchia canariensis ia parasite of pigeon
Hybotidae dance flies 3mm
Milichiidae very small and dark 1-3mm
Mythicomyiidae tiny 1-5mm
Psychodidae moth fly Phlebotomus ariasi tiny long legged sand fly
Sphaeroceridae small dung flies minute
Trixoscelididae sunflies

FLEAS

Insecta siphonaptera

5 species largely indistinguishable except under magnification.



ANTS

Insecta hymenoptera

12 species of ant
Aphaenogaster senilis



Camponotus hesperius
and 2 other subspecies



Cardiocondyla mauritanica



Cataglyphis albicans



Linepithema humile
Argentine ant



Messor hesperius



Monomorium subopacum
and 2 other subspecies



Paratrechina longicornis
longhorn crazy ant
Characteristic erratic movements



Pheidole teneriffana



1031219 © Animal (Invertebrat), Mallorca (España), 39° 30' N, 2° 44' E, 2 m. leg. K. Gómez, 13/07/2004
Jardín Taurini. Foto: K. Gómez
www.hormigas.org

Plagiolepis Barbara



Tetramorium depressum



Dasylabris canariensi (velvet ant)



BEES & WASPS

Insecta hymenoptera

25 families

Agaonidae fig wasp 1 *Eupristina verticillata*. 2mm Pollinates fig trees



Andrenidae mining bees 8-17mm 2 *Andrena fuscosa* and other ssp , *panurgus brullei*, wide variety of abdomen patterns



Anthophoridae cuckoo and carpenter bees 9
Wide variety of abdomen patterns to black
Bore into wood



Braconidae parasitic 10
Hugely variable, 1 - 15mm

chrysididae cuckoo wasps 3 shiny bright coloured bodies
chrysis anomala



colletidae plasterer bees 1 Hylaeus canariensis, hohmanni



crabronidae tachysphex and 15 other species sand wasps



Dryinidae pincer wasps 4



eumenidae potter wasp 7 very diverse – nests of hardened mud



halictidae sweat bees 5 attracted to sweat 4-10mm some metallic green, many normal bee colours



ichneumonidae parasitic 12 wide size variation bent tails eg
Campoplex borealis -large



masaridae
pollen wasp 1 sp



megachilidae
leaf cutting bees



melittidae bees 1sp
Melitta aegyptiaca



platygasteridae
Synopeas koponeni
long curved tail



pompilidae spider wasps 9
 pteromalidae parasitic 5 sp
 wide size variation



torymidae 2 sp
 Idiomacromerus nitens
 Torymoides kiesenwetteri



scoliidae parasitic 1 Micromeriella aureola hairy



sphecidae digger wasps

tiphiidae tiphiid wasps

Ammophila terminate
 Podalonia affinis
 and 3 other ssp

Poecilotiphia gracilis
 and 1 other sp



and 4 families of tiny host-specific parasitic wasps
 eurytomidae 1 Eurytoma timaspidis (*Bruchophagus timaspidis*) tiny
 Eulophidae 1 Diglyphus isaea 2mm parasitic on leafminers
 Aphelinidae tiny c1mm hard to distinguish parasitic 4
 Eupelmidae 1-4mm

There are no vespidae stinging wasps on Fuerteventura

SAWFLIES

A suborder of the hymenoptera distinguished by the lack of a waist between thorax and abdomen, and with four wings

3 species

Calamanta pygmaea (stem sawfly)



Corynis sanguinea



Elinora canariensis (common Canarian sawfly)



SNAILS

Gastropoda 18 species

Monilearia caementitia and 5 other subspecies



Napaeus lichenicola



Hemicycla paeteliana and 2 ssp
Critically endangered



Otala lactea
Spanish snail



Theba arinagae
Canary Islands land snail
And 5 other ssp



Canariella eutropis and 1 other ssp
Critically endangered



Candidula ultima



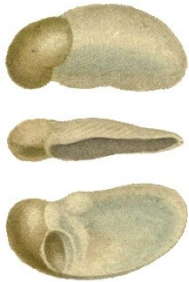
Cernuella virgate



Lauria cylindracea chrysalis smail Galba truncatula



Cryptella canariensis
and 3 other ssp



Physella acuta
acute bladder snail



Vitrea contracta



Gibbulinella dealbata



Rumina decollate



Caracollina lenticular



Truncatellina purpuraria



There are no slugs on Fuerteventura

EARTHWORMS

Annelida 6 species

Allolobophora eiseni - 5 other species look v similar to the untutored eye



VERTEBRATES

AMPHIBIANS

Mediterranean tree frog
Hyla meridionalis



Sahara frog
Pelophylax saharicus



REPTILES

East Canary gecko
Tarentola angustimentalis



Atlantic lizard
Gallotia atlantica



giant Canary lizard (30-40cm)
Gallotia stehlini



Canary skink
Chalcides simonyi



MAMMALS

North African hedgehog
Atelerix algirus



Canary shrew c5cm plus tail
Crocidura canariensis



pipistrelle bat
pipistrellus kuhlii



house mouse
mus musculus



brown rat
rattus norvegicus



black rat
rattus rattus



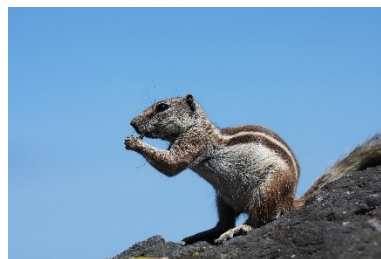
European rabbit
Oryctolagus cuniculus



wild cat
felis silvestris



Barbary ground squirrel
Atlantoxerus getulus



**ARTHROPODS
ANNELIDS
GASTROPODS AND
VERTEBRATES
OF FUERTEVENTURA**

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Emmelina monodactylla
Common or Morning Glory plume moth



Rests with wings tightly rolled, resembling a small T. Usually a greyish-white or cream to brown in colour. Each pair of spurs on the hind legs has one spur longer than the other